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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/689,222	10/11/2000	Siddhartha Nag	59033-278849	7951

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EXAMINER
KIANERSI, MITRA

ART UNIT	PAPER NUMBER
2145	

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	**Applicant(s)**
Office Action Summary	09/689,222	NAG ET AL.
	Examiner	**Art Unit**
	mitra kianersi	2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09 July 2004</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4,5,10,11,18,24,25,38 and 41-71* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4,5,10,11,18,24,25,38 and 41-71* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 October 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10\11\00 , 09\02\04</u>

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Claims 4-5, 10, 18, 24 and 38 have been amended.

Claims 1-3, 6-9, 12-17, 19-23, 26-37 and 39-40 have been canceled.

Claims 41-71 have been added.

Claims 4-5, 10-11, 18, 24-25, 38 and 41-71 are present for examination

Response to Arguments

The request for reconsideration received on 04/09/2004 has been made of

record in the file. Applicant's arguments with respect to above claims are moot in view of

the new ground(s) of rejection. Claims 4-5, 10-11, 18, 24-25, 38 and 41-71 remain

pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4-5, 10-11, 18, 24-25, 38 and 41-71 are rejected under 35 U.S.C. 103(a)

as being unpatentable over Pickett et al. (US Patent No. 6,154,465) and further in view

of Braden, R., et al. (Resource Reservation Protocol, RFC2205)

1.   As per claims 4 and 24, Picket disclose a method of allowing a user to

interactively explore how changes in path selection between media aggregation

managers affects projected link utilization in a network comprising:

-displaying a first projected link utilization schedule in response to a first request to
analyze the effect of conveying media packets between the first user community and

the second user community and the second user community over a first path of the plurality of physical paths, the first projected link utilization schedule illustrating predicted bandwidth usage for routers associated with the second path. (the D-type signaling channel may have sufficient bandwidth to provide signaling information for a plurality of communication links, with communications systems implemented and/or connected together as described herein, a common D-type signaling channel may be used to efficient provide signaling information for a plurality of T-1 or similar links coupled to a plurality of such communications systems, etc. [0286], Picket) -displaying a second projected link utilization schedule in response to a second request to analyze the effect of conveying media packets between the first user community and the second user community and the second user community over a second path of the plurality of physical paths, the second projected link utilization schedule illustrating predicted bandwidth usage for routers associated with the second path; (the D-type signaling channel may have sufficient bandwidth to provide signaling information for a plurality of communication links, with communications systems implemented and/or connected together as described herein, a common D-type signaling channel may be used to efficient provide signaling information for a plurality of T-1 or similar links coupled to a plurality of such communications systems, etc.[0286], Picket) -displaying graphical representation of a first and second media aggregation managers (Trace manager: A complete log of all system activity, the trace manager provides useful information such as real-time call progress, WAN protocol traces, frame relay management information, and voice mail activity to facilitate troubleshooting. [0250], Picket). The trace manager includes the following features and benefits: Display of all system activity; Graphically based; Enabled on a per-service basis; Multiple trace levels; and, Events color-coded for readability. [0254], Picket). Picket et al. do not explicitly disclose capability of serving as reservation session aggregation points on behalf of a first user community and a second user community, respectively, the first user community and the second community communicatively coupled by a plurality of physical paths through which media packets may be exchanged by way of one or more packet forwarding devices; However, Braden disclose a Resource reservation protocol where the mechanisms provide a general facility for creating and maintaining distributed reservation state across a mesh of multicast or Unicast delivery paths. Therefore, Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Pickets system and methods for multiple mode voice and data communication with Braden Resource reservation protocol, such a conventional system often is characterized by piecemeal equipment and network solutions, limited or non-existent coordination and management between voice system 1 and data system 2, non-optimized or non-integrated equipment, and inefficient use of costly network services (telephone lines, data lines, etc.), such as duplicate and often idle phone and data network lines, often provided from multiple equipment/service providers. In general, such conventional systems are neither constructed nor operated in a manner to provide efficient and integrated voice/data communications. ([0007])

2.   As per claims 5 and 25, further comprising overlaying a selected path of the plurality of physical paths onto existing bandwidth allocations to determine projected link utilization associated with the selected path. (a visual representation of whether particular ports or resources are utilized (such as, for example, by having an Ethernet or other network cable attached) also may conveniently be provided. [0272], Picket)

3.   As per claim 10, Picket disclose a Graphical User Interface (GUI) comprising:
- a first user interface screen that graphically depicts and identifies a plurality of nodes on a network, wherein the plurality of nodes includes at least a pairs of media aggregation managers that are configured to provide Multiplexing/demultiplexing of media traffic for a plurality of application sessions between a pair of communities onto a preallocated reservation protocol session, and wherein the pair of media aggregation managers are visually distinguishable from other nodes on the network a second user interface screen that graphically depicts a plurality of paths through the network, each path of the plurality of paths representing a potential path over which media packets are capable of being transferred between the pair of media aggregation managers, wherein an end-user is capable of initiating (1) configuration of a set of routers of the plurality of nodes that are part of a selected path of the plurality of paths to route media packets exchanged between terminals of the pair of communities over the selected path via the pair of media aggregation managers, and (2) establishment of the preallocated reservation protocol session between the pair of media aggregation managers.
a first user interface screen display portion that graphically depicts, and identifies a plurality of nodes on a network, wherein the plurality of nodes (the subscriber information also may include other information, such as the email address and extended directory information including personal information manager ("PIM") information of the particular subscriber and network identification for a computer associated with the particular subscriber. With such information, net messages or other communications with particular subscribers may be facilitating. [0117], Picket)
Picket et al. do not explicitly disclose capability of serving as reservation session aggregation points on behalf of a first user community and a second user community, respectively, the first user community and the second community communicatively coupled by a plurality of physical paths through which media packets may be exchanged by way of one or more packet forwarding devices; However, Braden disclose a Resource reservation protocol where the mechanisms provide a general facility for creating and maintaining distributed reservation state across a mesh of multicast or Unicast delivery paths. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Pickets system and methods for multiple mode voice and data communication with Braden Resource reservation protocol, such a conventional system often is characterized by piecemeal equipment and network solutions, limited or non-existent coordination and management

between voice system 1 and data system 2, non-optimized or non-integrated
equipment, and inefficient use of costly network services (telephone lines,
data lines, etc.), such as duplicate and often idle phone and data network
lines, often provided from multiple equipment/service providers. In general,
such conventional systems are neither constructed nor operated in a manner to
provide efficient and integrated voice/data communications. ([0007])

4.   As per claim 11, further comprising an identification table for displaying
characteristics of a selected node. (FIG. 5 illustrates the use of services/bandwidth
allocation rule table(s) in network services that are available to communications system
50. [0026], Picket)

5.   As per claims 18, 38 and 60, a method comprising receiving information
identifying a selected path of a plurality potential paths through a network that are
capable of communicating media packets between a first media aggregation manager
and a second media aggregation manager; (packet bus or other messages may be
readily exchanged in a manner to more readily facilitate (any management, etc. [0169],
Picket)
-responsive to receiving the information identifying the selected path, substantially
simultaneously provisioning a plurality of routers that are part of the selected path to
route media packets exchanged between the first media aggregation manager and the
second media aggregation manager over the selected path. (packet bus or other
messages may be readily exchanged in a manner to more readily facilitate telephony
management, etc. [0169], Picket)

6.   Claim 25, the machine-readable medium comprising: instruction to overlay a
selected path of the plurality of physical paths onto existing bandwidth allocation to
determine projected link utilization associated with the selected path. (a visual
representation of whether particular ports or resources are utilized (such as, for
example, by having an Ethernet or other network cable attached) also may conveniently
be provided. [0272], Picket)

7.   As per claims 41,52, 61 and 71, a method comprising:

-discovering a set of nodes within a Voice over Internet Protocol network, the set of

nodes including a plurality of routers and a plurality of communities;

-receiving an indication of a first node of the set of nodes that will serve as a

reservation protocol session proxy for one or more terminals associated with a first

community of the plurality of communities; receiving an indication of a second node of

the set of nodes that will serve as a reservation protocol session proxy for one or more

terminals associated with a second community of the plurality of communities;

-graphically depicting a plurality of paths through the VoIp network each representing a potential path over which media packets are capable of being transferred between the first community and the second community; (packet bus or other messages may be readily exchanged in a manner to more readily facilitate telephony management, etc. [0169], Picket)

Picket et al. do not explicitly disclose establishing a single reservation protocol session between the first node and the second node onto which a plurality of application sessions among the one or more terminals of the first community and the one or more terminals of the second community will be multiplexed. However, Braden disclose a Resource reservation protocol where the mechanisms provide a general facility for creating and maintaining distributed reservation state across a mesh of multicast or Unicast delivery paths. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Pickets system and methods for multiple mode voice and data communication with Braden Resource reservation protocol, such a conventional system often is characterized by piecemeal equipment and network solutions, limited or non-existent coordination and management between voice system 1 and data system 2, non-optimized or non-integrated equipment, and inefficient use of costly network services (telephone lines, data lines, etc.), such as duplicate and often idle phone and data network lines, often provided from multiple equipment/service providers. In general, such conventional systems are neither constructed nor operated in a manner to provide efficient and integrated voice/data communications. ([0007])

8.   As per claims 42, 55 and 62, wherein the first node and the second node comprise media aggregation managers. (This step is obvious because media aggregation managers provide application/protocol)

9.   As per claims 43, 56 and 63, wherein the single reservation protocol session comprises a ReSerVation Protocol (RSVP) session. (Fig. 9, Router using RSVP, Braden)

10.   As per claims 44 and 64, the method wherein first terminal of the one or more terminals associated with the first community and a second terminal of the one or more

terminals associated with the second community are running an Internet telephony

application and wherein an application session established between the first terminal

and the second terminal utilizes bandwidth reserve for the single reservation protocol

session to exchange voice transmissions between the first terminal and the second

terminal. (packet bus or other messages may be readily exchanged in a manner to

more readily facilitate telephony management, etc. [0169], Picket)

11.   As per claims 45 and 65, the method wherein said graphically depicting a
plurality of paths through the VoIP network comprises displaying the plurality of paths in
a prioritized fashion based upon one or more predetermined factors. ("frame relay,"
"private virtual channel" or other network services may be provided on the basis of a
predetermined amount of data transmission per fixed time period for a fixed price, with
additional charges for usage in excess of the predetermined amount, etc. [0094],
Picket).

12.   As per claims 46 and 66, the method wherein the one or more predetermined

factors include one or more of;

a number of nodes in the potential path; (receives as inputs information indicating the

total number and types of network resources. [0094], Picket)

total available bandwidth for the potential path; (FIG. 5 illustrates the use of

services/bandwidth allocation rule table(s) available communications between nodes

that make up the potential path and; sufficient bandwidth to provide signaling

information for a plurality of communication links, [0286], Picket)

propagation speed between nodes that make up the potential path; and (System speed-

dial buttons; [0119], Picket) physical length of travel between nodes that make up the

potential path. (a local or long distance telephone number. [0069], Picket)

13.   As per claims 47, 59 and 67, the method further comprising prior to said

configuring a set of routers of the plurality of routers that are part of a selected path of

the plurality of paths:

-receiving a request to analyze the selected path; (Call detail recording: A complete
record of all voice and data calls placed or received by communications system 50, this

information can be used to analyze call patterns and trunk utilization, and to generate call reports. [0248], Picket)
-determining a total combined schedule of bandwidth allocation by combining:

a predicted increase in bandwidth allocation for each router of the set of routers that are part of the selected path assuming the single reservation protocol session between the first node and the second node is to be established, (a single, consistent management interface for your voice and data infrastructure, [0213])and (2) a current bandwidth allocation for each router of the set of routers that are part of the selected path representing bandwidth previously allocated. (a more direct connection between packet bus 80A and/or 80B may be established by way of embedded router or bridge Router/bridge 83 includes a CPU, TCP/IP controller, router, and stack, Ethernet interface or other functionality as may be desired to couple LAN bus 81 to, for example, one or more HDLC controllers 79A. Through the use of router/bridge 83, communications between packet buses 80A and 80B may be accomplished while consuming minimal resources of processor/system resources 70. [0081, Picket].

14.   As per claims 48 and 68, further comprising displaying the total combined schedule of bandwidth allocation for the selected path to an administrator of the VOIP network. (the user, service provider, administrator and/or algorithm has determined will provide adequate or required resources, [0069, Picket]

15.   As per claims 49, 58 and 69, wherein the displayed total combined schedule of bandwidth allocation allows the administrator to confirm whether utilization of the available communication bandwidth for each of the routers of the set of routers that are part of the selected path is within a desired range. (B/W management 31 may allocate and de-allocate such services and resources in a desired and/or cost efficient manner. [0094], Picket)

16.   As per claims 50 and 70, further comprising displaying a network map including visually distinguishable graphical representations of tire plurality of routers, (the plurality of communities, a plurality of media aggregation managers, and interconnections among them. (Call detail recording: A complete record of all voice and data calls placed or received by communications system 50, this information can be used to analyze call patterns and trunk utilization, and to generate call reports. [0248], Picket)

17.   The method of claim 51, further comprising:
-receiving information regarding a number of end-users that are part of the first community that are capable of communicating via the first node; and
-receiving information regarding a number of end-users that are part of the second community that ace capable of communicating via the second node. (Call detail recording: A complete record of all voice and data calls placed or received by communications system 50, this information can be used to analyze call patterns and trunk utilization, and to generate call reports. [0248], Picket)

18.   As per claim 53, further comprising:
-receiving information identifying a pair of nodes of the set of nodes that serve as
reservation protocol session proxies for terminals associated with a pair of communities
of the plurality of communities; (a visual representation of whether particular ports or
resources are utilized (such as, for example, by having an Ethernet or other network
cable attached) also may conveniently be provided. [0272], Picket)
-graphically depicting a currently selected path through the VoIP network over which
media packets are currently configured to be transferred between the pair of
communities; and responsive to a request to deallocate the currently selected path,
deallocating bandwidth allocated to routers along the currently selected path
communicatively coupling the pair of nodes, including terminating a reservation protocol
session between the pair of nodes. (a visual representation of whether particular ports
or resources are utilized (such as, for example, by having an Ethernet or other network
cable attached) also may conveniently be provided. [0272], Picket)

19.   As per claim 54, an apparatus for administering a Voice over Internet Protocol
(VoIP) network comprising:
-a storage device having stored therein one or more routines to receive input from a
system administrator and convey information about the Vein network to the system
administrator, (a central storage location in communications system 50 and made
available in real time or by file access to such a remote user. [0303], Picket)
-a processor coupled to the storage device to execute the one or More routines to
perform discovery of the VOIP network, identify potential paths through the VoIP
network over which media packets are capable of being transferred between a pair of
selected nodes participating in the VoIP network, and configure the VoIP network to use
a selected path of the potential paths to exchange media packets between a pair of
communities participating in the VoIP network; and (processor includes a local
area network controller, which provides routing and hubs and/or switches for
one or more packet networks. [0009], Picket)
-a display coupled to the processor, wherein a set of nodes within the Vo1P network is
discovered, the set of nodes including a plurality of routers and a plurality of
communities; (FIG. 17E illustrates a window for displaying trace information from
various software components, drivers, etc. in communications systems, Braden)
-the potential paths are graphically depicted on the display in a prioritized fashion;
-a set of routers of the plurality of routers that are part of the selected path are
configured to route media packets exchanged between the pair of communities over the
selected path; packet bus or other messages may be readily exchanged in a manner to
more readily facilitate telephony management, etc. (packet bus or other messages may
be readily exchanged in a manner to more readily facilitate telephony management, etc.
[0169], Picket)
the pair of selected nodes are configured to act as reservation protocol session proxies
on behalf of the pair of communities; and a single reservation protocol session is
established between the pair of nodes onto which a plurality of application sessions

among terminals of the pair of communities will be multiplexed. The buffer/framer is coupled to the TDM bus by way of a multiple port or multiport switch/multiplexer, which includes the capability to intelligently map data traffic between the buffer/framer and the TDM bus to various slots of the TDM frames. [0009], Picket)

20.   As per claim 57, wherein the processor determines a total combined schedule of bandwidth allocation by combining (1) a predicted increase in bandwidth allocation for cache router of the set of routers that are part of the selected path assuming the single reservation protocol session between tine pair of selected nodes is to be established, a single, consistent management interface for your voice and data infrastructure, [0213], Picket) and (2) a current bandwidth allocation for each router of the set of routers that are part of the selected path representing bandwidth previously allocated. (a more direct connection between packet bus 80A and/or 80B may be established by way of embedded router or bridge 83. Router/bridge 83 includes a CPU, TCP/IP controller, router, stack, Ethernet interface or other functionality as may be desired to couple LAN bus 81 to, for example, one or more HDLC controllers 79A. Through the use of router/bridge 83, communications between packet buses 80A and 80B may be accomplished while consuming minimal resources of processor/system resources 70. [0081], Picket)

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
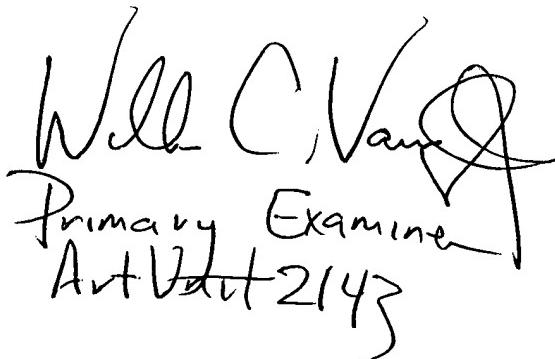
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mitra Kianersi whose telephone number is (571) 272-3915. The examiner can normally be reached on 7:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272- 3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mitra Kianersi
Oct/30/2004